

**MPEG-2 DECODER, METHOD AND BUFFER SCHEME FOR PROVIDING
ENHANCED TRICK MODE PLAYBACK OF A VIDEO STREAM**

Abstract of the Invention

Trick mode playback is implemented by disengaging a frame synchronization signal, and then decoding “I” and “P” frames to two (or more) buffers. Specifically, each buffer has a pointer that is associated with a memory/origin address. The pointers are locked in place by disengaging the frame synchronization signal. Once the pointers are locked in place, the “I” frames and “P” frames are decoded to the two buffers in an alternating fashion based on a continuous swapping of the memory addresses associated with the two pointers. Because both “I” and “P” frames (as opposed to only “I” frames) are decoded and displayed, the trick mode playback appears smoother. In addition, because the frame synchronization signal was disengaged, the frames can be decoded at a rate faster than a single frame time. That is, one frame need not be completely decoded and read out before the next frame is decoded.